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BEFORE THE A POSTAL REGULATORY COMMISSION WASHINGTON, D.C. 20268–0001

FIRST-CLASS MAIL AND PERIODICALS SERVICE STANDARD CHANGES, 2021

Docket No. N2021-1

RESPONSE OF THE UNITED STATES POSTAL SERVICE WITNESS THRESS TO STEVE HUTKINS' INTERROGATORIES SH/USPS-T5-1 THROUGH 6

(May 25, 2021)

The United States Postal Service hereby provides the response of witness Thress to the above-listed interrogatories. The interrogatories are stated verbatim and followed by the responses.

The Postal Service believes that Steve Hutkins has exceeded the limit on interrogatories set forth in Rule 3020.117(a), pursuant to federal case law adopted by the Commission. Order No. 2080, Order Adopting Amended Rules of Procedure for Nature of Service Proceedings under 39 U.S.C. 3661 (May 20, 2014), at 44. Nevertheless, the Postal Service has chosen to respond to these interrogatories in lieu of filing a motion to be excused from doing so on numerosity grounds. The Postal Service's choice to accommodate Steve Hutkins in this specific instance should not be construed as a waiver of the Postal Service's right to seek excusal from any further interrogatories by Steve Hutkins on numerosity or other grounds, or from any arguably excessive interrogatories by any other party in any other instance.

Respectfully submitted, UNITED STATES POSTAL SERVICE

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SH/USPS-T5-1. Please refer to your testimony on Docket No. R2010-4R, Sept. 26, 2013, "Further Statement," p. 8, Table 2, "Exigent Postal Service Losses, FY 2008 – 2012."

TABLE TWO: Exigent Postal Service Losses, FY 2008 - 2012

	Starting	ing Pre-Existing Non-Macro-Economic Factors						Macro-Economy & Recession-Induced	Final	
First Olese Mail	Volume	Population	Diversion	Trends	Nominal Price	Inflation	Other Factors	Factors	<u>Volume</u>	
First-Class Mail 2008	95,347.0	1,059.4	(2,657.2)	744.3	(1,787.4)	973.5	918.4	(3,926.9)	90,671.2	
<u>2009</u>	90.671.2	<u>923.6</u>	(2.429.7)	<u>671.5</u>	(747.6)	<u>173.2</u>	(425.1)	(6,110.1)	82,727.0	
2008 - 2009	95,347.0	1,983.0	(5,086.9)	1,415.8	(2,535.0)	1,146.8	493.3	(10,037.0)	82,727.0	
<u>2010</u>	82,727.0	<u>855.2</u>	(2,224.5)	<u>594.5</u>	(512.2)	<u>257.4</u>	<u>888.8</u>	(4.994.6)	77,591.6	
2008 - 2010	95,347.0	2,838.2	(7,311.4)	2,010.3	(3,047.2)	1,404.1	1,382.1	(15,031.7)	77,591.6	
2011	77,591.6	<u>819.9</u>	(2,055.2)	<u>543.3</u>	(78.7)	461.1	(747.7)	(4,012.3)	72,521.9	
2008 - 2011	95,347.0	3,658.1	(9,366.6)	2,553.6	(3,125.9)	1,865.2	634.4	(19,044.0)	72,521.9	
<u>2012</u>	72,521.9	<u>809.4</u>	(1,911.6)	496.2	(463.0)	<u>527.6</u>	<u>239.5</u>	(3,546.2)	68,673.7	
2008 - 2012	95,347.0	4,467.5	(11,278.2)	3,049.8	(3,588.9)	2,392.8	873.9	(22,590.2)	68,673.7	

Please confirm the table shows diversion was responsible for a loss of 2,055.2 million pieces in 2011 and 1,911.6 million in 2012; that negative impacts (diversion, nominal price, other factors, and macro-economy & recession induced factors) totaled 6,893.9 million in 2011 and 5,681.4 million in 2012; and that diversion was therefore responsible for approximately 30 percent of these negative impacts in 2011 and 34 percent in 2012.

RESPONSE:

Not confirmed.

The figures 2,055.2 and 1,911.6 referenced here refer to the "pre-existing" diversion trends which were in operation prior to the start of the Great Recession. Included within the "recession induced factors," then, were additional negative trends which began coincident with the Great Recession and which were, in my judgment, triggered by the Great Recession.

The "Macro-Economy and Recession-Induced Factors" presented at page 8 of my testimony in Docket No. R2010-4R were calculated within USPS-R2010-4R/10 filed with that case. The spreadsheet ExigentImpact.xlsx within that folder decomposes the sub-factors which are combined within Table 2 of my testimony at columns D and W.

Per this spreadsheet, additional trends triggered by the Great Recession accounted for volume losses for First-Class Mail of 3,696.8 million pieces in FY 2011 and 3,478.1 million pieces in FY 2012 (column W of sheet 'Volume' of ExigentImpact.xlsx, filed with USPS-R2010-4R/10, sum of individual First-Class Mail categories). Added to the pre-existing losses, the models filed in Docket No. R2010-4R (subsequently redesignated as Docket No. R2013-11) estimated First-Class Mail losses due to diversion trends of approximately 5,752.0 million pieces in FY 2011 and 5,389.7 million pieces in FY 2012.

SH/USPS-T5-2. Please refer to your testimony for N2021-1, p. 21, the table entitled "Sources of Change in Mail Volumes since 2010."

Sources of Change in Mail Volumes since 2010, Changes expressed in Changes in Total Volume

	Starting		Diversion	Macro-	Postal		Avg. Delivery	Other	Final
	<u>Volume</u>	<u>Population</u>	Trends	Economy	Prices	<u>Inflation</u>	<u>Time</u>	<u>Factors</u>	Volume
First-Class Mail									
2011	77,591.6	815.0	(4,438.7)	335.0	(117.4)	391.7	(48.3)	(2,007.1)	72,521.9
2012	72,521.9	813.0	(4,175.2)	561.2	(373.6)	450.5	(133.4)	(986.3)	68,678.1
2013	68,678.1	777.1	(3,361.5)	406.9	(375.7)	282.6	(95.2)	(179.6)	66,132.8
2014	66,132.8	724.8	(2,672.7)	476.5	(603.4)	241.7	(48.7)	(176.9)	64,074.0
2015	64,074.0	680.3	(2,324.1)	582.0	(505.8)	112.6	350.3	(194.0)	62,775.4
2016	62,775.4	642.3	(2,538.9)	436.1	(53.9)	102.9	(646.3)	665.5	61,383.2
2017	61,383.2	571.0	(3,435.9)	353.7	301.0	257.6	131.1	(615.3)	58,946.3
2018	58,946.3	482.3	(3,332.0)	375.4	(74.0)	315.6	24.2	61.3	56,799.1
2019	56,799.1	430.4	(2,647.8)	315.5	(237.8)	275.3	(42.3)	111.6	55,003.9
2020	55,003.9	<u>417.7</u>	(2,139.3)	(2,074.8)	(211.9)	205.9	<u>52.6</u>	1,420.9	52,674.9
Total	77,591.6	6,353.9	(31,066.2)	1,767.5	(2,252.5)	2,636.5	(456.0)	(1,899.9)	52,674.9

Please confirm that the table shows that "diversion trends" were responsible for a loss of 4,438.7 million pieces in 2011 and 4,175.2 million in 2012; that negative impacts (diversion trends, postal prices, average delivery time, and other factors) totaled 6,611.5 million in 2011 and 5,668.4 million in 2012; and that diversion was therefore responsible for approximately 67 percent of total negative impacts in 2011 and 74 percent in 2012.

RESPONSE:

Confirmed.

SH/USPS-T5-3. Please explain why your calculations indicate that the percentage of volume losses due to diversion in 2011 and 2012, as presented in your testimony for N2021-1, are more than double the losses during these years as presented in your testimony for R2010-4R.

RESPONSE:

Per my response to SH/USPS-T-5-1, my testimony in Docket No. R2010-4R actually implied that diversion trends explained First-Class Mail volume losses of 5,752.0 million pieces in FY 2011 and 5,389.7 million pieces in FY 2012, as compared to my more recent estimates of 4,438.7 million and 4,175.2 million, respectively.

Hence, my most recent estimates are, in fact, smaller than the estimates from my testimony for Docket No. R2010-4R. As to why they are smaller, the difference is that, in retrospect, some of the volume declines that were continuing into FY 2012 did eventually subside (further reinforcing my belief that these factors were properly attributed to the Great Recession). This has been recognized in my more recent econometric equations by introducing a series of step-down dummy variables starting in 2010, 2011, and 2012 (D2010Q2ON, D2011Q2ON, and D2012Q2ON) in the First-Class Single-Piece Letters equation (see my econometric output, out_ad.txt, filed as part of Library Reference USPS-LR-N2021-1-5 in this case). The impact of these variables is reflected within the column labeled "Other Factors" at page 21 of my current testimony.

SH/USPS-T5-4. Please refer to your testimony, p. 24, showing the table "First-Class Mail volumes vs. Average Delivery Time, by Type of Mail: 2005 – 2020 (annual)."

First-Class Mail volumes vs.	Average Delivery T	ime by Type of Mail:	2005 - 2020 (annual)

First-Class Mail Sent by Households (HDS) Non-Household to Household (HDS) Avg. Deliver									
	Correspondence	Bill Payments	Correspondence	Advertisina	Bills	Statements	Other	Total (RPW)	Days
2005	7.989.3	8.970.2	19.223.3	10.782.3	17.872.2	6.272.2	26.466.3	97.575.8	2.02
2005	8.265.6	8,733.5	18,494.9	10,762.3	18,335.5	6.642.5	26,400.3	96,935.7	2.02
2007	7.943.8	8,365.2	18,820.6	9.033.8	18,202.0	6,809.3	26,168.8	95.343.6	2.09
2007	7,729.4	6,995.2	18,087.3	8,257.3	17,978.3	6,293.7	25,330.0	90,671.2	2.13
2009	7,135.8	6,493.9	16,795.5	6,648.5	17,376.5	6,386.5	22,150.3	82,727.0	2.02
2010	5.590.8	5.632.3	15.994.6	6.115.1	15.365.2	5.417.8	23,475.8	77.591.6	2.07
2011	4,964.9	5,516.9	16,280.9	5,447.8	15,180.6	4,655.1	20,475.7	72,521.9	2.13
2012	5.009.2	5.097.9	16,311.4	5.021.3	14.847.0	4.744.5	17.642.4	68.673.7	2.13
2013	4.916.0	4,513.0	15,497.2	4,240.1	14,268.8	4,284.9	18,171.7	65,891.7	2.18
2014	4,403.4	4,470.0	15,407.8	3,924.8	14,102.8	4,513.9	17,026.4	63,849.0	1.98
2015	4.607.4	4.382.6	15.003.7	3.593.4	13.842.1	4.204.1	16.965.5	62.598.8	2.27
2016	4,046.8	3,752.8	15,143.6	3,826.0	13,594.6	3,994.0	16,881.3	61,239.1	2.23
2017	3.554.7	3.341.4	15.014.6	3.712.2	12.629.7	4.050.9	16.529.7	58.833.3	2.23
2018	3,440.8	3,100.2	14,774.6	3,504.0	12,526.0	3,930.7	15,435.3	56,711.6	2.29
2019	3,319.1	2,784.0	14,102.5	3,972.8	11,367.5	3,741.4	15,649.4	54,936.7	2.27
2020	3,133.6	2,467.2	13,621.5	3.470.2	10,593.6	3.870.6	15,466.1	52,622.8	2.32
2020	0,100.0	2,101.2	10,021.0	0,170.2	10,000.0	0,010.0	10, 100.1	02,022.0	2.02
SPLYs									
2006	3.5%	-2.6%	-3.8%	-4.1%	2.6%	5.9%	-1.3%	-0.7%	0.4%
2007	-3.9%	-4.2%	1.8%	-12.7%	-0.7%	2.5%	0.2%	-1.6%	2.9%
2008	-2.7%	-16.4%	-3.9%	-8.6%	-1.2%	-7.6%	-3.2%	-4.9%	1.8%
2009	-7.7%	-7.2%	-7.1%	-19.5%	-4.8%	1.5%	-12.6%	-8.8%	-5.0%
2010	-21.7%	-13.3%	-4.8%	-8.0%	-10.2%	-15.2%	6.0%	-6.2%	2.4%
2011	-11.2%	-2.0%	1.8%	-10.9%	-1.2%	-14.1%	-12.8%	-6.5%	2.8%
2012	0.9%	-7.6%	0.2%	-7.8%	-2.2%	1.9%	-13.8%	-5.3%	0.2%
2013	-1.9%	-11.5%	-5.0%	-15.6%	-3.9%	-9.7%	3.0%	-4.1%	2.5%
2014	-10.4%	-1.0%	-0.6%	-7.4%	-1.2%	5.3%	-6.3%	-3.1%	-9.4%
2015	4.6%	-2.0%	-2.6%	-8.4%	-1.8%	-6.9%	-0.4%	-2.0%	14.6%
2016	-12.2%	-14.4%	0.9%	6.5%	-1.8%	-5.0%	-0.5%	-2.2%	-1.5%
2017	-12.2%	-11.0%	-0.9%	-3.0%	-7.1%	1.4%	-2.1%	-3.9%	-0.1%
2018	-3.2%	-7.2%	-1.6%	-5.6%	-0.8%	-3.0%	-6.6%	-3.6%	2.6%
2019	-3.5%	-10.2%	-4.5%	13.4%	-9.2%	-4.8%	1.4%	-3.1%	-1.1%
2020	-5.6%	-11.4%	-3.4%	-12.7%	-6.8%	3.5%	-1.2%	-4.2%	2.5%

Please confirm that during the period 2005-2020 the only year for which delivery time increased more than 2.9 percent over the previous year was 2015, when the increase was 14.6 percent, and that for the most part, as you state on page 20, lines 5-9, of your testimony, "average days to delivery have been relatively stable over this time period." If not confirmed, please explain.

RESPONSE:

Confirmed.

SH/USPS-T5-5. Please discuss statistical challenges, such as those regarding confidence levels, and any other issues that may arise in making projections when there is only a single previous event (the 14.6 increase in delivery time in 2015) that is at all comparable to the event being analyzed (an increase in delivery time of 18 percent, the Postal Service's projection under the proposed changes).

RESPONSE:

Statistical estimates are most robust within the historical range of the variables for the time period over which such estimates are made.

Average days to delivery for First-Class Single-Piece Mail ranged from 1.70 days (in 2009Q3-4 and 2010Q3-4) to 2.5 days (in 2015Q2 and 2020Q4) over the time period over which I estimated the First-Class Single-Piece equations presented in my testimony. This is a range of 47 percent.

Average days to delivery for First-Class Workshare Mail ranged from 2.00 days (2013Q4, 2014Q3-4) to 2.40 days (2011Q2, 2013Q1-2, 2015Q2, 2020Q4) over the time period over which I estimated the First-Class Workshare equations presented in my testimony. This is a range of 20 percent.

The relative stability of the average days to delivery, on the other hand, is actually advantageous statistically. The greatest challenge in multi-variate regression analysis is to isolate the impact of one factor from the possible impact of other factors. This is most difficult if the explanatory variables are highly correlated with one another (so-called "multi-collinearity). If, for example, average days to delivery had a noticeable trend over time (either up or down), it would be difficult to isolate the impact of such a variable from the diversion trends already in the equation. But because average days to delivery have only changed significantly a small number of times over the time period which I evaluated, it is

easier to isolate and quantify the effect of delivery time on mail volumes independent of the other factors (e.g., diversion trends, the macro-economy, Postal prices) which have operated on mail volumes more regularly over the same time period.

SH/USPS-T5-6. Please refer to your testimony, p. 37, lines 17-19, where you state that "the expected losses to First-Class Mail if average days to delivery increased by 18 percent would be 497.9 million pieces of mail, \$241.4 million in gross revenue, and \$105.6 million in lost contribution." Please confirm that these estimates refer only to the first full year following implementation of the new standards and that your analysis did not encompass what volume, revenue and contribution impacts might occur in subsequent years. If your analysis did encompass these impacts, please provide the results.

RESPONSE:

The expected losses which I calculated and discuss at page 37 of my testimony would apply to the first full year after all lagged reactions to changes in average days to delivery have had time to take effect. If average days to delivery remain at this new elevated level, it would be expected that any volume which was lost due to this factor would remain lost, but no additional losses would be expected to accrue if average days to delivery subsequently remained constant.